2 SYSTEM DESCRIPTION

2.1 SERVICE AREA PHYSICAL DESCRIPTION

Urban Water Management Planning Act Requirement:

10631(a) Describe the service area of the supplier.

General Location Overview

The Ventura County is located northwest of Los Angeles County. To its north is Kern County. The Santa Barbara County goes along some of the western border with the Pacific Ocean on the southwest edge. Ventura County is most mountainous and uninhabited north of Highway 126. This is also a pristine wilderness area mostly situated within the Los Padres National Forest.

The Triunfo Sanitation District/Oak Park Water Service's (District) service area consists of Oak Park and the communities in an unincorporated area of Ventura County, approximately three miles east of Thousand Oaks. Figure 2.1.1 illustrates the service area of the District in southeast Ventura County.

Water System Overview

The Triunfo Sanitation District/Oak Park Water Service, organized as a special district in November 12, 1963, provides sewage services and waste water treatment for the southeastern portion of Ventura County. The District as a whole covers approximately 50 square miles, where over 4.1 square miles are served with potable water. Potable water is supplied by CMWD to TSD/OPWS. In addition, OPWS uses recycled water, which is treated and supplied by TSD. Figure 2.1.1 illustrates the District's overlapping service areas, and Figure 2.1.2 shows the Oak Park Water Service Vicinity Map.

The District's water supply comes from two sources. Potable water is imported solely from the Calleguas Municipal Water District (representing 2.6% of the delivered water supply). The other source is recycled water from the Tapia Water Reclamation Facility made available through a Joint Powers Authority between the District and Las Virgenes Municipal Water District.

The District distributes recycled water to its residential, commercial, institutional and landscape customers within the Oak Park and the Lake Sherwood areas; however, its potable water system serves only Oak Park. Other public and private water purveyors serve the potable water needs of Lake Sherwood area residents as well as others in the District's service area.

The District's facility includes over 120 miles of wastewater collection system pipeline – that has 4 pump stations and ½ mile pressure mains, and over 40 miles of potable distribution system pipeline. The District has a network of water storage tanks that allows some in-system transfers between reservoirs in the event of water outages. Tank levels in each of the reservoirs are also maintained, as much as possible, per specifications of the Ventura County Fire Department. Also the District has embarked on a major water system improvement project – the construction of a new water storage tank in the hills east of Lindero Canyon Road and north of Kanan Road. This 2.1 million-gallon tank will eventually replace the Conifer Tank and increase water storage capacity of the community by 1 million gallons. Presently the total storage volume is equivalent to approximately two days' worth of supply. Table 2.1.1 provides a description of the storage tanks.

Table 2.1.1
Storage Capacity

Tank/Zone	Year of Construction	Construction Type	Capacity (Gallons)
Conifer	1966	Steel	1,000,000
Deerhill	1998	Concrete	2,100,000
Savoy	1990	Steel	1,600,000
Kilburn	1986	Steel	860,000

Figure 2.1.1 – Triunfo Sanitation District Service and Oak Park Water Service Boundaries

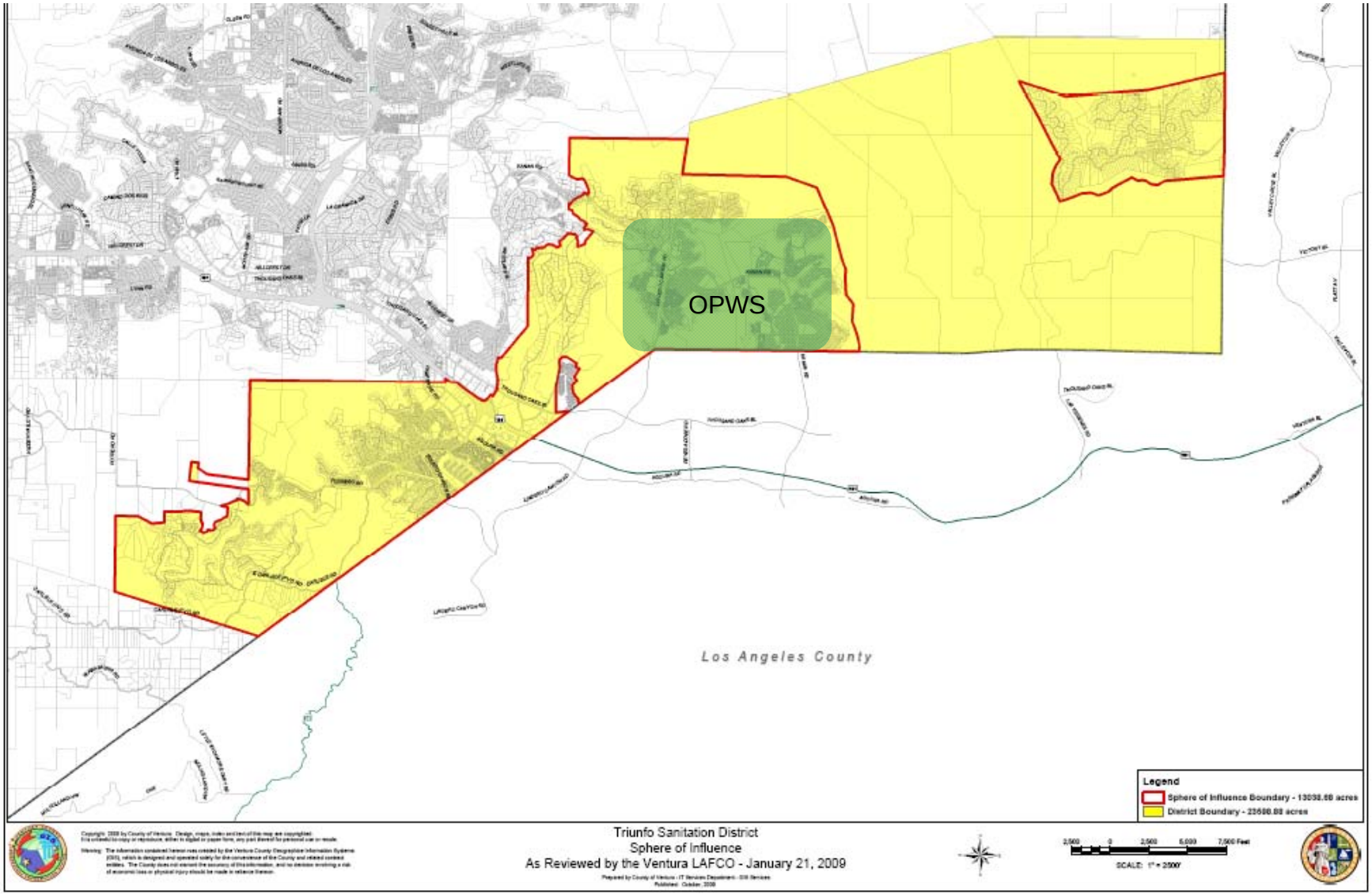
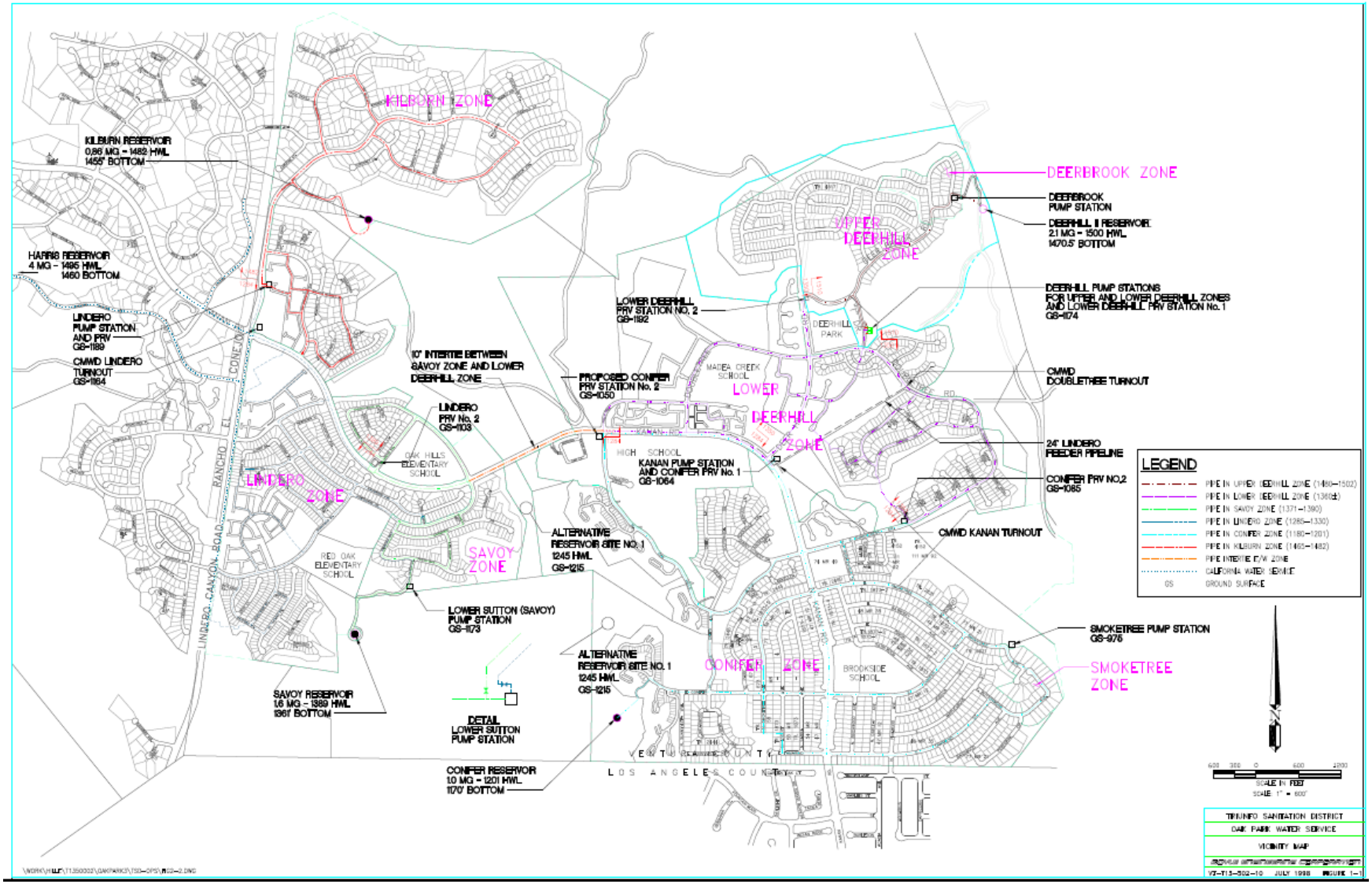


Figure 2.1.2 – Oak Park Water Service Vicinity Map



2.2 SERVICE AREA CLIMATE

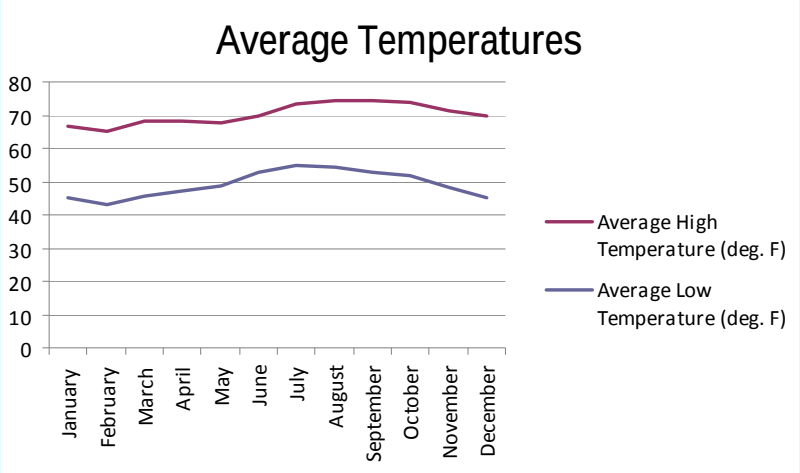
Urban Water Management Planning Act Requirement:

10631(a) Describe the service area – climate.

Temperature

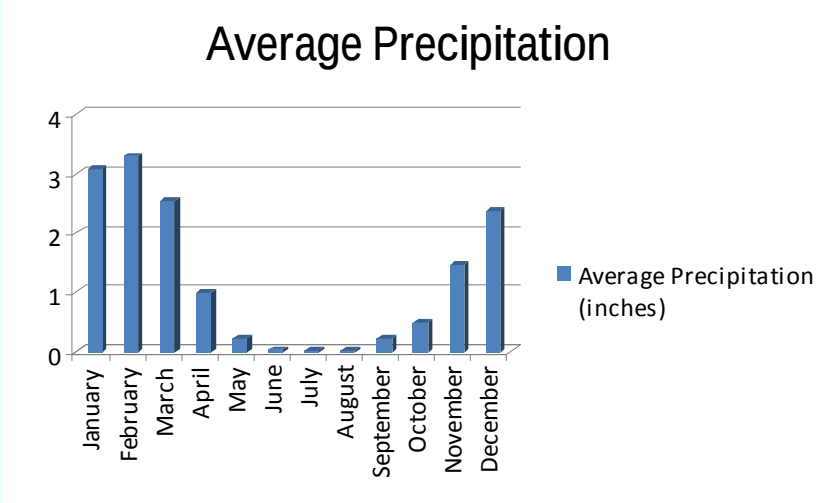
The Southeastern Ventura County's Mediterranean semi-arid climate is temperate year-round, with warm and dry weather lasting from late spring through early fall. The temperature range is generally moderate as depicted in Figure 2.2.1; the average high temperature is 70.3 °F and the average minimum annual temperature is 49.1 °F.

Figure 2.2.1 – Average Temperatures



Precipitation

Figure 2.2.2 – Average Precipitation



The County's precipitation range is from 12 inches annually to over 14 inches annually with the majority of this rainfall occurring during the winter season (wet period). The 1998 El Nino conditions provided 140% of normal rainfall during this "wet" period. The average annual monthly precipitation in the County of Ventura is presented in Figure 2.2.2.

Additionally, seasonal variation in temperature, rainfall, and evapotranspiration rate are illustrated in Table 2.2.1.

Table 2.2.1
Climate Data (Period Record: 1/1/1900 – 12/31/2010)

	Avg. High Temp. (F)	Avg. Low Temp. (F)	Avg. Precipitation	Avg. (ETo)
January	66.9	45	3.08	1.83
February	65.3	43.2	3.29	2.2
March	68.2	45.8	2.55	3.42
April	68	47.0	0.98	4.49
May	67.7	48.7	0.23	5.25
June	70.0	53	0.04	5.67
July	73.3	55.1	0.01	5.86
August	74.3	54.3	0.02	5.61
September	74.3	52.8	0.22	4.49
October	73.7	51.6	0.49	3.42
November	71.2	48.1	1.46	2.36
December	69.9	45.1	2.37	1.83

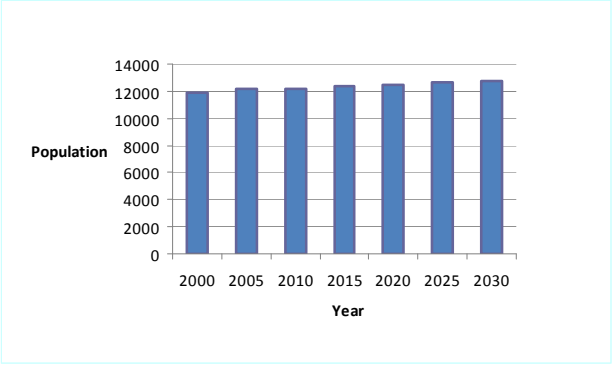
Source: Western Regional Climate Center

2.3 SERVICE AREA POPULATION

Urban Water Management Planning Act Requirement:

10631(a) Describe the service area – current and projected population … The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier …(population projections) shall be in five-year increments to 20 years or as far as data is available.

Figure 2.3.1 – Projected Population Growth



There are approximately 12,200 people, or approximately 4,500 households, that comprise most of the District's potable water service area. The outlying tract has a population density of 1,329.5/sq-km (3,567.1/sq-mi). The average density of housing units is 491.4/sq-km (1,258.5/sq-mi). The actual local density is about half that because over half the land area are public parks. With the completion of its last

major development in 2001, county estimations that show the community is at 100% build out, and county estimations that show a slow increase in population, the community does not anticipate significant additional growth or water demands in the future years. This is illustrated in Table 2.3.1 and Figure 2.3.1 by the low growth rate of the population. Population estimates for the District's service area were obtained from the Ventura County population estimates.

Table 2.3.1
Population — Current and Projected

	2010	2015	2020	2025	2030	Data source
Service Area Population[1]	12,201	12,341	12,483	12,627	12,772	Ventura County Population Estimates

[1] Service area population is defined as the population served by the distribution system. See Technical Methodology 2: Service Area Population (2010 UWMP Guidebook, Section M).

2.4 OTHER DEMOGRAPHIC FACTORS

Urban Water Management Planning Act Requirement:

10631(a) Describe the service area – other demographic factors affecting the supplier's water management planning

The population served by the District's potable water service area and comprises only 2-3% of the demand on Calleguas Municipal Water District supplies. In 2010, The District supplied 4,596 customers defined as residential, commercial, institutional and landscape users and provided 3,137 acre-feet of water. About 580 acre-feet of that total was recycled water from the Tapia Treatment Plant. Historically, recycled water use accounts for 20% - 25% of the total water supply and is used for landscape irrigation.

The District potable water service area is predominantly residential with some commercial and institutional but no industrial. Most residents are employed in the Los Angeles County areas to the east. Rolling hills and considerable open space surround this pleasant bedroom community, giving it a casual "country" atmosphere. Both population and water use are expected to be stable in the coming 20 years. These estimates are supported by Ventura Council of Governments forecast data.